



Environmental and Safety Designs, Inc.

Memphis, TN • Nashville, TN • Raleigh, NC • Pensacola, FL

December 5, 1993

Ms. Beth Brown
Remedial Project Manager
EPA Region IV
345 Courtland St., NE
Atlanta, GA 30365

**Re: Carrier Air Conditioning Superfund Site
Collierville, Tennessee
November, 1993 Progress Report**

Dear Ms. Brown:

On behalf of the Carrier Corporation, Environmental and Safety Designs, Inc. (EnSafe) is pleased to submit the following progress report for the month of November, 1993. This report is in accordance with Section XIV of the Unilateral Administrative Order (UAO) for Remedial Design and Remedial Action.

The report contains the actions and activities undertaken pursuant to the UAO at the facility during the month of November, 1993.

If you have any questions or comments, please do not hesitate to call me at (901) 372-7962.

Sincerely,

Environmental and Safety Designs, Inc.

By: Darrell Richardson
Environmental Engineer

Enclosure

cc: Mr. Nelson Wong, Carrier (w/Enclosure)
Mr. Merv Atwood, Bechtel (w/Enclosure)
Mr. Jordan English, TDEC (w/Enclosure)



**NOVEMBER 1993 PROGRESS REPORT
CARRIER AIR CONDITIONING SUPERFUND SITE
COLLIERVILLE, TENNESSEE**

1.0 INTRODUCTION

This progress report outlines actions and activities undertaken at the facility pursuant to the Unilateral Administrative Order (UAO) for Remedial Design and Remedial Action (RDRA). The report describes all work planned for the next month and includes all plans, reports, deliverables, and procedures completed during the previous month.

2.0 ACTIVITIES

Activities completed during this period were the installation of Soil Vapor Extraction (SVE) wells and probes for the Main Plant Area (MPA) Treatability Study. Drilling began on November 1, 1993 and was completed on November 17, 1993. Three deep SVE wells and three shallow SVE wells were installed along with three SVE probes per SVE well. Each SVE well was sampled with a continuous sampler and samples were taken at various depths to be analyzed for TCE. SVE probes were also sampled with the continuous sampler to aid in location of screen depth. Some SVE probes were sampled for TCE, this was dependent upon headspace readings and the distance from the probe to the associated SVE well. Actual depths and screened intervals of each SVE well and probe can be found in Attachment A, as well as sample results.

3.0 DATA

Results of SVE well and probe drilling and sampling activities have been compiled in spreadsheet form and can be found as Attachment A.

4.0 WORK COMPLETED

SVE well and probe installation, as specified in the Remedial Design Work Plan, was completed during the month of November.

5.0 DECEMBER 1993 SCHEDULE

Transglobal Environmental Geochemistry (TEG) will begin performing field testing for the MPA Treatability Study at the site on December 2, 1993. This field work is expected to be completed on December 7, 1993. Upon receipt of data from the MPA Treatability Study, preliminary SVE design for the full-scale SVE system will begin.

A schedule of future work pursuant to the RDRA can be found as Attachment B.

6.0 GENERAL INFORMATION

No problems or delays were encountered during November 1993 work, and no delays are expected during December 1993 work.

On November 3, 1993, a conference call was held to discuss the installation of the downgradient monitoring well, specifically the installation and operation of the Westbay Instrument. Those participating in the conference call included:

Mr. Nelson Wong, P.E.	Carrier Corporation
Ms. Beth Brown	EPA Region IV RPM
Mr. Craig Wise	EnSafe
Mr. Darrell Richardson	EnSafe
Mr. Alan Jacobs	EnSafe
Mr. Alex Nikolajevich	Westbay Instruments
ESD	

Concerns were raised concerning the integrity of samples obtained from the Westbay Instrument as well as the sampling and QA/QC techniques. Westbay forwarded a package to each party which included papers on the Westbay Instrument as well as contacts of Westbay Instrument users.

On November 5, 1993, a meeting was held at the facility. Those attending the meeting included:

Mr. Nelson Wong, P.E.	Carrier Corporation
Mr. Carl Krull	Carrier Corporation
Ms. Beth Brown	EPA Region IV RPM
Ms. Susan Hill	Bechtel (Oversight Contractor)
Mr. Craig Wise	EnSafe
Mr. Darrell Richardson	EnSafe
Mr. Waymon Meeks	EnSafe

Topics of discussion included the installation of the downgradient monitoring well, North Remediation Site (NRS) confirmation borings, and the SVE MPA Treatability Study. It was decided that the NRS confirmatory borings scheduled for the month of November, 1993 would be delayed until after NRS stack sampling has taken place. A tour of the site was conducted including the SVE wells and probes that had been installed as well as the NRS.

Attachment A
SVE Well/Probe Data

**CARRIER-COLLIERVILLE, TN
SVE WELL/PROBE DATA**

Identification	Well/Probe	Total Depth (ft)	Screen Interval (ft)	Sample Depth ID	Sample Depth (ft)	Sample Result TCE (ppb)	
CC-SVE-1A	Well	36	26-36	S1	8-9	118	Area A
				S2	18-19	72	
				S3	29-30	13	
CC-SVE-2A	Well	15	5-15	S1	4-5	53	
				S2	13-14	26	
CC-MP-3A	Probe	32	29.5-32	S1	8-9	<10	
				S2	31-32	<10	
CC-MP-4A	Probe	12	9.5-12	ns	ns	ns	
CC-MP-5A	Probe	32	29.5-32	ns	ns	ns	
CC-MP-6A	Probe	12	9.5-12	ns	ns	ns	
CC-MP-7A	Probe	28	25.5-28	S1	2-3	<10	
				S2	27-28	<10	
CC-MP-8A	Probe	12	9.5-12	ns	ns	ns	
CC-SVE-1B	Well	40	30-40	S1	2-3	548	Area B
				S2	12-13	26	
				S3	22-23	38	
				S4	32-33	10	
				S5	39-40	38	
				S6	42-43	40	
CC-SVE-2B	Well	17	7-17	S1	2-3	1600	
				S2	7-8	2400	
				S3	12-13	650	
CC-MP-3B	Probe	35	32.5-35	S1	7-8	42	
				S2	32-33	<10	
CC-MP-4B	Probe	15	12.5-15	ns	ns	ns	
CC-MP-5B	Probe	36	33.5-36	ns	ns	ns	
CC-MP-6B	Probe	15	12.5-15	S1	12-13	850	
				S2	14-15	360	
CC-MP-7B	Probe	34.5	32-34.5	S1	5.5-6.5	250	
				S2	22-23	35	
				S3	32-33	19	
CC-MP-8B	Probe	15	12.5-15	S1	14.4-15.5	60	
CC-SVE-1C	Well	37	27-37	S1	2-3	80	Area C
				S2	12-13	72	
				S3	19-20	51	
				S4	22-23	34	
				S5	32-33	12	
CC-SVE-2C	Well	22.5	12.5-22.5	S1	2-3	116	
				S2	12-13	63	
				S3	22-23	29	
CC-MP-3C	Probe	33	23-33	S1	28-29	<10	
				S2	32-33	<10	
CC-MP-4C	Probe	18	15.5-18	S1	17-18	102	
CC-MP-5C	Probe	33	23-33	ns	ns	ns	
CC-MP-6C	Probe	18	15.5-18	S1	17-18	70	
CC-MP-7C	Probe	37.5	35-37.5	S1	22-23	<10	
				S2	36-37	12	
CC-MP-8C	Probe	17	15-17	S1	12-13	317	

ns = not sampled

Attachment B

Schedule

Carrier Corporation Collierville, TN
EnSafe, Inc. Supervising Contractor

G. W. JOHN FLAUGHER, JR.

